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Work or Welfare? The Effect of Poverty Status on Child Development

by

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A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree Master of Science

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ABSTRACT

The purpose of this study was to determine if family poverty status, work or welfare, is a predictor of child developmental outcomes. Assumptions from human ecology theory, were used to hypothesized that poverty status, along with additional covariates, have important impacts on child development. Using data from the National Longitudinal Survey of Children and Youth, regression analysis was used to determine that higher levels of verbal development are associated with children from working poor families as compared to those children from welfare dependent families. While the findings of this research may have policy implications, important caveats must be considered. Findings from this study are based on a sample of poor families who chose to participate in work or welfare. Enforcing mandatory employment requirements on all poor families may have different outcomes. Further research will be needed in order to monitor the effects of welfare reform and mandatory employment on children.

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CHAPTER 1

INTRODUCTION

The problem of poverty has been one of growing concern in Canada. In 1997, 17.5% of Canadians lived in poverty (Statistics Canada, 1999). For children the problem is even more severe with 19.8%, or nearly 1.4 million, children falling below the poverty line (Statistics Canada, 1999). Although there is no official poverty line in Canada, the Statistics Canada low income cut off (LICO) is commonly used to measure poverty (Ross et al. 1994). The LICO is a relative measure of poverty, and represents gross levels of income where people spend 20% more than the average Canadian family, or 54.7%, of their income on the necessities of life, such as food, clothing and shelter. The cut off varies depending on family size and population of residence. The LICO is not considered the poverty line by Statistics Canada (the agency describes it as the line under which people are living in "straightened circumstances"), however it is generally regarded by policy makers as such (National Council of Welfare, 1997; Ross et al. 1994). While the LICO is not the only measure of poverty used in Canada, it is the measure most widely accepted and is comparable to most other measures (National Council of Welfare, 1997).

Although the majority of children who are poor live in two parent families, children living in single parent families are much more likely to be poor (Charette & Meng, 1994; Ellwood & Summers, 1986; National Council of Welfare, 1997; Ross et al. 1994; Lichter & Eggebeen, 1994). Single mothers experience the highest poverty rates, at 65%, of all groups living in poverty in Canada in 1995 (National Council of Welfare, 1997).

Welfare is the primary source of income for the majority of single mothers, 64% (National Council of Welfare, 1997). Although the percentage of single mothers

collecting welfare has remained constant over the past 15 years, the number of single mothers on welfare has doubled (Alberta Family and Social Services, 1991; National Council of Welfare, 1997). Along with the growing number of single mothers on welfare, comes growing concerns over government spending and the rising costs of social programs.

With the growing case loads and the mounting concerns for debt reduction and fiscal restraints, the Canadian government began to shift the responsibility for economic and social security away from themselves to families and individuals (Shellenberg & Ross, 1997). Individuals and families have been pushed to increase their financial independence through participation in the paid labor force. This trend can be seen in recent policy changes directed at single parent families collecting welfare.

In Alberta, policies regarding the work exemption for single parents on welfare have been subjected to a number of changes over the past 30 years. Until 1971 almost all mothers, or single parents, collecting welfare were considered exempt from working. By 1988, with the introduction of the Social Allowance program, new policies were established stating that a parent with one child was eligible for work when the child was more than 4 years old, and a parent with two children was eligible once both children were in school. In 1991, the Social Allowance system was once again reformed and renamed Supports for Independence. Along with the name change came a new direction for social allowance, helping clients to achieve their highest level of self sufficiency possible. When the new program was implemented in 1991, a parent could choose to stay at home to care for a child less than two years of age (Alberta Family & Social Services, 1991). By 1996,

this policy was amended to a child who was under 6 months of age (Canada Council on Social Development, 1998).

The increase in pushing mothers on welfare to seek employment in the paid labor force results from a number of factors. First, as the majority of women with children enter the labor market, the norm for mothers to work outside home is formed (Harris, 1994). Second, it is the belief of policy makers that deeming single parents unemployable may create "psychological barriers" that reduce their likelihood of seeking future employment (Alberta Family and Social Services, 1991). Concerns also exist for the children raised in these families, based on the notion that welfare creates low expectations for children and leads to dependency for future generations (Alberta Family Social Services, 1991).

Although policies have been formed based on the above assumptions, are these assumptions supported by research? Do poor children benefit when mothers are mandated to work outside of the home, in the paid labour force? It is likely that the answer to this question is based in part on the type of employment found by women leaving welfare. A recent study on the effects of welfare reform in Alberta found that almost half of former welfare recipients leaving welfare found jobs that paid less than the average welfare benefit level. Moreover, less than 15% of these jobs provided any form of benefits (Shillington, 1998). Single mothers leaving welfare for low wage employment without benefits may experience a far different set of circumstances than those women who find higher paying jobs with benefits.

Many studies have documented the devastating effects of poverty on children. Poor children are at greater risk for poor health and academic outcomes, accidental death and injury, dropping out of school and developing psychiatric and behavioral problems

than other children (Canadian Council on Social Development; 1996; Ross et al. 1994). However, relatively little research has accounted for the diversity of poverty experiences on child development. One way in which to account for this diversity is to examine the effects of poverty status or, main source of family income, work in the paid labour force or welfare benefits, on the development of poor children.

The effects of welfare reforms and mandatory employment policies on families and children are unknown. Although Alberta, along with all other provinces across Canada, has implemented welfare-to-work policies, no province has planned or implemented an evaluation of the effects of these policies on families and children (Canada Council on Social Development, 1998). In order to ensure the best possible outcomes for children living in poor families, the effects of poverty status on children's developmental outcomes must be examined. The primary objectives of this study are to determine if poverty status is a predictor of child development and to compare the developmental outcomes of children from working poor and welfare dependent families.

It should be noted that single fathers are omitted from this study for two reasons. First, the vast majority of poor single parent families, 86%, are headed by women (Canada Council on Social Development, 1996). Second, work in the paid labour force is more likely to result in a substantial increase to incomes for single fathers, than for single mothers, due to the higher incomes generally earned by men in the labour force (Elton et al. 1997). This will likely result in a greater difference in incomes for single fathers on welfare than those fathers who leave welfare for the work force.

CHAPTER 2

CONCEPTUAL FRAMEWORK: HUMAN ECOLOGY THEORY

The relationship between family poverty status and child development can be studied using an ecological framework (Bronfenbrenner, 1979; Bubolz & Sontang, 1993). Ecological theories consider families within the larger environments within which they exist, and consider the effect of these environments on human development. Bronfenbrenner (1979) states that a parent's ability to raise children within a family is largely dependent on the demands, stresses and supports present in other environments. Supportive work environments, availability of child care, community supports, health care and social services all effect a parent's ability to nurture healthy child development. In turn, the availability of this social infrastructure is dependent on the larger social policy environment within which families exist. In this way, child development takes place within an ecosystem, with children being effected, not only by their immediate family environment, but by the broader environments with which families interact. Ecology theory looks beyond the individual and the family to the broader context within which it exists, to explain phenomena within the family.

Using Bronfenbrenner's ecological approach, child development can be viewed as nested in the center of a macrosystem consisting of three increasingly broader environments: the microsystem, the mesosystem, and the exosystem. Elements of each environment play important roles in shaping child development. Research utilizing an ecological approach must consider elements from each of these three environments in order study child development in the holistic manner in which it is assumed to occur.

A basic assumption from ecological theory is that the outermost environment effecting child development is the exosystem or the social cultural environment (Bronfenbrenner, 1979; Bubolz & Sontang, 1993). The social cultural environment includes the government policies which determine the quality and availability of elements of the social infrastructure. The social policy environment is an important part of the macrosystem, which effects the meso and microsystems, thus effecting families everyday lives and the development of their children (Bronfenbrenner, 1979).

Nested within the exosystem, lies the second environment effecting child development, the mesosystem, or the human built environment (Bronfenbrenner, 1979; Bubolz & Sontang, 1993). The human built environment includes the communities, schools, day cares, work places and social infrastructure with which families frequently interact. Although children are not always in direct contact with these environments, they may act as family supports or stresses which can facilitate or inhibit healthy family functioning and, in turn, child development.

At the center of the macrosytem lies the family, which is assumed to be the microsystem for human development (Bronfenbrenner, 1979; Bubolz & Sontang, 1993). The home environment in which the family lives, personal characteristics of parents, family size, type, and income are all important factors affecting child developmental outcomes (Desai et al. 1989; Hoa, 1995; Parcel & Menaghan, 1994). These factors which make up a child's immediate environment have a direct impact on child development and can inhibit or support healthy child development.

Ecological theory provides an excellent conceptual framework to study the effects of poverty status on child development. Findings from previous research indicates that the

environmental factors associated with poverty, increased parental stress and fewer opportunities for learning in the home, have negative effects on children's developmental outcomes (Bolger et al. 1995; Canadian Council on Social Development, 1996; Duncan et al. 1994; Garrett et al. 1994; Mcleod & Shanahan, 1993; Ontario Ministry of Health, 1992; Ross et al. 1996). Based on the assumption that the environment in which a family exists effects child development, it can be speculated that the different environments of family poverty status will have different consequences for child development. It can be hypothesized that welfare presents a different set of limitations and possibilities for families than does employment in the low wage labor market. Although children who live in either family type live in poverty, the different set of circumstances which each poverty context creates for the family will pose different limitations and benefits for child development.

Ecological theory can be used to predict that the differing environments of low wage work and welfare may have different consequences for child development. However, the theory can not predict which environment may be more or less beneficial to child development. Both the environments of low wage work and welfare have potential positive and negative effects for child development. While one can speculate that children from working poor families may have better developmental outcomes, due to the stronger work ethic and greater sense of accomplishment modeled by working parents, it is equally plausible that work at low wages may have negative ramifications. Working poor parents may experience more role strain, higher levels of stress, and have less time to interact with their children than parents collecting welfare benefits. Similar speculations can be made regarding the effects welfare on child development. It can be predicted that children from

welfare dependent families may have better developmental outcomes, due to the increased amount of time and energy parents on welfare have to spend with their children. However, these benefits may be out weighed by the negative effects of the stigma associated with welfare and by parental frustrations with being in the welfare system.

CHAPTER THREE

REVIEW OF THE LITERATURE

The literature pertaining to developmental outcomes of children in working poor and welfare dependent single parent families will be examined under four categories. First, as this study is based on the notion that poverty negatively effects child development, the literature examining the effects of poverty on child development is presented. In accordance with human ecology theory, in the sections which follow, the literature pertaining to how the various environments effect child development will be discussed, beginning with the exosystem or policy environment, followed by the mesosystem or the family's near environment. Last, the literature related to the microsystem, or the effects of the family environment on child development, will be considered. In the final section of this chapter a summary of the literature as it pertains to the present study will be provided.

Effects of Poverty on Children's Development

The lives of poor children vary across different communities, cultures and family types. Despite the diversity of poverty experiences among poor children, developmental risks are significantly greater, on average, for poor children than non poor children (Canadian Council on Social Development, 1996; Ontario Ministry of Health, 1992; Ross et al. 1996). Children living in poor families are at greater risk than those living in non-poor families to have poor health and poor educational outcomes. Children living in poor families have more than twice the incidence of chronic illness, and physical and developmental disabilities than children living in non poor families (Ross et al. 1996). In

addition , poor children score lower on measures of educational achievement and are twice as likely to drop out of school than their non-poor peers (Ross et al. 1996).

Along with the negative effects of poverty on health and education, comes a strong link between poverty and negative social and emotional outcomes. Children from poor families have been found to be twice as likely to develop emotional disorders, and three times more likely to display hyperactivity and conduct disorders than their peers from middle income families (Ontario Ministry of Health, 1990). Children experiencing persistent poverty are at even greater risk than those children experiencing sporadic or short term poverty (Bolger et al. 1995; Duncan et al. 1994; Mcleod & Shanahan, 1993). These risks faced by poor children undermine their ability to grow and develop into healthy independent adults (Ross et al. 1996).

Although the relationship between poverty and negative child development is clear, very little research has examined the effects of the diversity of poverty experiences on child development. One way in which to examine this diversity is to study the effects of family poverty status, work or welfare, on child development. The literature pertaining to the effects of low wage work and welfare on families and child development will be discussed in a later section of this chapter. In the sections which follow, the effects of the exosystem or the social cultural environment on family poverty status will be presented.

The Effects of the Social Cultural Environment on Family Poverty Status

The social cultural environment, although not related directly to child development, plays an important role in determining a family's ability to nurture healthy child development (Bronfenbrenner, 1979; Bubolz & Sontang, 1993). Social policies and

economic conditions are important factors determining parents' decisions to participate in the low wage labour market or to collect welfare. For many single parent families, full time low wage employment does not pay sufficient amounts to improve family income relative to welfare (Harris, 1993; Licher & Eggebeen, 1994; National Council of Welfare, 1993; Schellenberg & Ross, 1997). Moreover, for larger families with multiple children, work at low wages may pay less than welfare. Unlike the welfare system, the labour market does not take into account the number of children per household, resulting in the income shortfall experienced by some families (National Council on Welfare, 1993). In addition, low minimum wage rates may act as a deterrent for some single parents seeking employment. Although the minimum wage rate and welfare payment rates vary from province to province, a single parent receives a greater income on welfare, although not enough to exceed the low income cut off, than from full time employment at minimum wage in all provinces (Dooley, 1995).

Welfare policies also play an important role in determining poverty status. Tax back rates, or the amount by which welfare benefits are reduced when clients earn income through paid employment, may serve as a deterrent to participating in low wage employment. This rate varies from province to province, but ranges from 75% to 100% (National Council of Welfare, 1993). Additional benefits available to welfare clients, such as health care, child care and housing subsidies, may act as a further incentive for welfare participation (Dooley, 1995).

Finally, current efforts by policy makers to reduce caseloads through welfare reform will act as a further determinant of family poverty status. For example, current welfare policy in Alberta stipulates that all parents, regardless of family type, must

participate in full time paid employment when their youngest child reaches six months of age (Canada Council on Social Development, 1998). Polices requiring parents of young children to participate in employment eliminate the choice which many low income parents had in the past to work in the home or the low wage labour market.

In sum, the policy environment in which families live play an important role in decisions to participate in the low wage labour market or to collect welfare. Wage rates, tax back rates, health and dental benefits are all factors which influence decisions surrounding poverty status. Further, recent welfare reforms, which include mandatory employment policies for parents of young children, eliminate parental choice regarding poverty status. In the following section, the literature on the effects of low wage work and welfare on child development will be presented to highlight the advantages and disadvantages each poverty status presents for child development.

The Effects of the Human Built Environment on Child Development

In this section the effects of the human built environment, or the mesosystem, on child development will be discussed. The human built environment includes the social infrastructure, including the environments of work or welfare, with which families frequently interact. In this section the effects of low wage maternal employment on parents and children will be presented, followed by a discussion on the relationship between family welfare dependence and child development.

Effects of Maternal Low Wage Employment on Children's Developmental Outcomes

The findings on the effects of maternal employment on childhood outcomes among low income families have been mixed. While some studies report positive outcomes for children when their mothers are employed (Alessandri, 1992; Desia et al. 1989; Vandell & Ramanan, 1992), other studies have found negative outcomes (Parcel & Menaghan, 1990, Parcel & Menaghan, 1994). Many of the differences between these findings can be explained by the differences in the variables being controlled in the various studies.

Several studies have shown that maternal employment has positive effects on the developmental outcomes of poor children. Desai et al. (1989) found that maternal employment had slightly positive effects on the reading abilities of four-year-olds living in families at or near the poverty line, and negative effects only for four-year-old boys from high income families. These results are supported by a smaller study of seven-year-old girls, which found that maternal employment positively effected math and reading scores of second grade girls (Vandell & Ramanan, 1992). These findings are supported by a third study comparing the family functioning and school performance of 10 to 12 year old girls with employed mothers to their peers with welfare dependent mothers. Findings showed that girls with employed mothers perceived more cohesion and organization in their families and did better in school than those girls with mothers on welfare (Alessandri, 1992).

Researchers explained the positive effects of maternal employment on the developmental outcomes of low income children in two ways. First, they speculated that maternal employment increased the resources available for low income families, therefore decreasing parental stress levels (Desai et al. 1989; Vandell & Ramanan, 1992).

Moreover, the researchers speculated that, by working outside of the home and increasing family income, mothers increased the quality of a child's home environment by providing more opportunities for learning in the home through books and educational outings (Desai et al. 1989; Vandell & Ramanan, 1992). This theory is supported by the findings of Garrett, et al. (1994) that showed improvements to family income positively effected quality of children's home environment. In addition, it was speculated that mothers who participate in paid employment provide stronger role models and communicate a greater sense of independence to their children than mothers collecting welfare (Alessandri, 1992).

An important limitation should be noted regarding the findings of these studies. The positive effects found by researchers in both studies occurred in families where maternal employment resulted in an increase to family income. As both studies included two parent and single parent families in their samples, it can be speculated that the positive benefits of maternal employment are mainly experienced by two parent families where a working mother's second income can significantly boost family income (Licher & Eggebeen, 1994 & National Council of Welfare, 1993). While Vandell and Ramanan (1992) controlled for family type, and found similar positive results, these findings also were based on a small sample of twenty-five working mothers for whom work resulted in an increase in family income. Based upon the findings of studies on the impact of work on the incomes of poor single mother families, the majority of single mother families working in the paid labour force do not experience positive impacts on family income (Harris, 1993; Licher & Eggebeen,1994; National Council of Welfare, 1993), such that the finding can not be generalized to the larger population of poor working single mothers.

In sum, some studies have found a positive correlation between maternal employment and child development, but these studies have been limited to cases where maternal employment results in increases to family income. These findings can not be generalized to working poor single mother families where employment may not result in incomes which surpasses welfare benefit levels. In the following section the effects of maternal working conditions and wages on child development will be presented.

Effects of Maternal Working Conditions on Child Development

Research has suggested that mothers' jobs have an indirect influence on children's development (Parcel & Menaghan, 1990; 1994; Piotrkowski & Katz, 1982). Studies on the effects of maternal employment conditions on children's developmental outcomes have shown that only children with mothers in jobs with higher hourly wages and working fewer than full time hours benefit from maternal employment. For mothers in low wage jobs, with long hours the results are poorer quality of home environments and negative effects on children's verbal fluency (Parcel & Menaghan, 1990). These findings are supported by Moore and Driscoll (1997), who report that the positive effects on child development only occur when maternal wages exceed $5.00 per hour. Further, for some outcomes, such as fewer behavioral problems, effects only occur when maternal wages exceed $7.50 per hour. Moreover, it has been found that mothers foregoing employment in less complex, low paying jobs for the first three years of a child's life may improve verbal fluency in children (Parcel & Menaghan, 1994). Although some research has shown that mothers working in more complex jobs have children with more positive developmental outcomes (Kohn, 1977; Parcel & Menaghan, 1990; Piotrkowski & Katz,

1982), these benefits are not found when maternal education and IQ are controlled (Parcel & Menaghan, 1990).

In sum, research has suggested that it is not only important to consider the effects of maternal employment on child development but also to consider the effects and wages and hours worked. While better paying jobs with less than full time hours can result in an increase in the quality of home life for children, low wage jobs with more than full time hours have less positive effects on children's development. In the following section the effects of employment on maternal well-being will be discussed.

Effects of Employment on the Well Being of Mothers in Poverty

Despite the fact that women are disproportionately represented in low wage employment (Parker, 1994), the majority of research on maternal employment has focused on professional women and women in dual earner families. For single mothers in poverty, the problems associated with low wage, routine working conditions, are compounded by the role strain experienced by trying to balance work and family without the assistance, financial or otherwise, of a spouse. (Jackson, 1992; Parker; 1994; Quinn & Allen, 1989). One of the most important factors which contribute to well-being of poor mothers in the labour force is the choice to participate in paid employment. (Jackson, 1992; Parker, 1994). Findings in the literature reveal that mothers who prefer employment, and who participate in the workforce, have less role strain than those women who work but prefer to stay at home (Jackson, 1992). The decision to work outside of the home varies among welfare mothers, as it does in the general population. While some mothers feel the greatest rewards for themselves and their children come through participation in the labour

market, others prefer to stay at home with their children, even if that means relying on welfare (Richards, 1989).

In addition to the freedom to choose employment, workplace supports are important determinants of well-being decreasing role strain among poor single employed mothers (Parker, 1994). Single mothers who are employed in jobs with supportive work environments that provide benefits and paid sick leave are much more likely to succeed in maintaining their jobs than those mothers without workplace supports. Unfortunately the nature of the changing labor market to an increase in part time low-wage work make workplace supports a reality for a very small portion of working poor mothers (Family Services Association of Edmonton, 1991 & Shellengberg & Ross, 1997).

In summary, the findings regarding the effects of employment on poor mothers and their children show that, for the majority of women, a job does not guarantee protection from poverty. Moreover, the results of employment for poor single mothers is different than for middle class mothers in complex jobs and mothers in dual income families. Whereas employment for middle class, married mothers can have no or positive effects on children's home environments and developmental outcomes, employment in low wage jobs has been shown to negatively effect children's home environments and developmental outcomes. Finally it is important to consider maternal choice as a factor influencing maternal well-being for working poor mothers.

Impact of Welfare on Children

Although plenty of research has examined the effects of poverty and parental employment on children's developmental outcomes, little research has examined the

effects of welfare on children. The majority of studies on the effects of welfare consider only how it affects adolescents. Research in this area focuses predominantly on the effects of welfare on sexual behavior, teen pregnancy and intergenerational transmission of welfare dependency for adolescents who grew up on welfare (Corcoran & Adams, 1995; Gottschalk, 1992; Pepper, 1995; Santiago, 1995).

Findings from the research on intergenerational transmission of welfare dependency have been mixed. Although some studies have revealed a positive correlation between parental welfare participation and son or daughter welfare participation (Gottschalk, 1992 ; Pepper, 1995), others have found little or no effect for sons or younger children (Corcoran & Adams, 1995; Santiago, 1995). Daughters growing up on welfare, regardless of the duration of time spent on welfare, spend more time on welfare as adults than those daughters who did not grow up on welfare (Gottschalk, 1992; Pepper, 1995). Although the intergenerational transmission of welfare participation has been shown by research, the correlation is small. Approximately 10% of girls who grew up on welfare later depended on welfare for a short time, and only 1% of girls become chronic welfare users (Santiago, 1995). Moreover, welfare dependency as adults was strongly correlated with the child's age at the time that their family received welfare. Children whose families had received welfare when they were between the ages of 14 and 17 were more likely to grow up to be welfare dependent than those who received welfare at a younger age (Santiago, 1995). A study on the effects of parental welfare on sons' later work effort found that labour market unemployment rates were a more powerful predictor of work force participation than parental welfare participation among young black men (Corcoran & Adams, 1995).

Very little research has focused on the effects of welfare on young children. A study by Hoa (1995), based on a large sample of families from the American National Longitudinal Study of Youth Data set, examined the effects of poverty, welfare, and family structure on school age children. This study found that, although poverty and single motherhood are detrimental to children's home environments, welfare actually improves home environments and social and emotional outcomes for children in low income single mother families. Differing results were found by Kim et al.(1998), who reported that those children from families with welfare receipt were more likely to have behavioral problems than those children in poor families not receiving welfare.

In summary, the research on the effects of welfare on children's developmental outcomes has focused mainly on adolescents. These studies have examined the sexual behavior, school outcomes and intergenerational transmission of welfare dependency among youth whose parents were welfare dependent. Although research has shown that girls who grew up on welfare were somewhat more likely to collect welfare later in their lives, the results were dependent on their families receiving welfare in their later teen years. Results on the effects of welfare on younger children have been mixed, and warrant further investigation to determine which poverty environment has greater benefits for child development.

The Effects of Family Environment on Child Development

A child's reaction to poverty is partially determined by their parents' reaction to poverty. Factors associated with poverty such as increased parental stress, depression and negative parent/child interactions, negatively affect children's developmental outcomes

(Duncan et al. 1994; Harnish et al. 1995; Mcleod & Shanahan, 1993; McLolyd & Wilson, 1991; Quinn & Allen, 1989). For single mothers living in poverty, low socioeconomic status not only results in the monetary constraints experienced by poor families, but the time constraints and overwhelming responsibilities of caring for children as a lone parent (Quinn & Allen, 1989 & Richards, 1989).

Levels of parental stress and depression are positively associated with increased levels of psychological distress and behavioral problems in children (McLoyd & Wilson, 1991 & Harnish et al. 1995). Parent's experiencing higher levels of depression and stress do not interact as positively with their children. The lack of nurturing and negative quality of parent/child interactions demonstrated by poor parents result in children with more behavioral problems (Hamish et al. 1995) and higher levels of social emotional distress (McLoyd & Wilson, 1991). Similar findings have been revealed by both qualitative and quantitative studies. In interviews with forty-three single mothers, Richards (1989) found that mothers were concerned about the effect that their stress over finances had on their role as parents, and reported that their anxieties made it difficult for them to be attentive to their children.

In addition to parental stress, parental characteristics including education and intellectual capabilities are important factors influencing developmental outcomes for children at all income levels (Desai et al., 1989; Hao, 1995; Moore & Driscoll, 1997; Parcel & Menaghan, 1994). Children with mothers who are more highly educated and score higher on mental aptitude tests score higher on tests of cognitive abilities (Desai et al., 1989; Parcel & Menaghan, 1994). Moreover, Hoa (1995) found that mothers with more education had children with fewer behavioral problems.

It should also be noted that maternal characteristics of education level and cognitive abilities are not randomly distributed through the population of working poor and welfare dependent single mothers. Poor single mothers who engage in low wage employment have been found to have more education and higher cognitive abilities than poor mothers on welfare (Desia et al. 1989; Parcel & Menaghan, 1990; 1994; Vandell & Ramanan, 1992). As maternal education and cognitive abilities are important factors influencing child development, it can be speculated that developmental differences which do exist between children from working poor and welfare dependent families can be partly attributed by differences in maternal characteristics.

In addition to the effects of maternal characteristics and stress, home environment, or the opportunity for learning and healthy development in the home, is an important factor determining the effects of poverty on children's developmental outcomes (Garrett et al. 1994). Using the Home Observation for Measurement of the Environment (HOME), a standardized test used to measure the quality of a child's home environment, researchers determined that the strongest determinant of a child's home environment is parental income. Children who live in higher income families have more opportunities for learning within their homes, as compared to those children from low income families. Income has been shown to more strongly predict the quality of a child's home environment than parental education or aptitude (Garrett et al. 1994).

In addition to family income, family size has important implications for child development (Hoa, 1995; Parcel & Menaghan, 1994). A larger number of children in the home can have negative ramifications on child development due to the strain it places on both time and financial resources. Researchers have found that children with a larger

number of siblings have fewer cognitive skills (Parcel & Menaghan, 1994) and more behavioral problems (Hoa, 1995) than their peers with fewer siblings.

Last, family type or parent marital status, may also have implications for child developmental outcomes. Research results regarding the effects of parent marital status on child development have been mixed. While some studies have indicated a negative relationship between single mother families, and child development (Duncan et al, 1994; McLanahan, 1990), others have found no effect (Desai et al. 1989; Ross & Roberts, 1998). The difference in results can largely be attributed the relationship between income and single mother status. In those studies where the effects of income are controlled for, family type has been found to have no effect on child development (Desai et al. 1998; Ross & Roberts, 1998). Hence, the negative relationship between child development and single parent status can largely be attributed to the lower incomes of single mothers relative to two parent families.

In sum, elements of a child's family and home environment influence developmental outcomes. Maternal characteristics including parental stress and poor quality home environments place poor children at risk for negative developmental outcomes. Family size and maternal education also have important effects on child development for all children, despite their family income, and therefore must be also be accounted for in an ecological study of child developmental outcome. While parent marital status may also have implications for child development, it is likely that these effects are largely a result of income rather than family type.

Summary

Children living in poor families are at risk for poor developmental outcomes. More so than for any other family types, single mother families are most likely to be poor. The results of this poverty is detrimental for children. The increased parental stress and poor quality home environments experienced by poor families is positively associated with psychological distress and behavioral problems in children. These negative outcomes experienced by poor children have long term consequences which diminish a child's chance for a healthy, productive future.

Plenty of research has documented the negative effects of poverty on children's health, educational, and developmental outcomes, but few studies have considered the effects of the diversity of poverty environments in which poor children live. One way in which to examine this diversity, is to study the effects of family poverty status, working-poor and welfare dependent, on children's developmental outcomes.

The social policy environment in which poor families live plays an important role in determining poverty status. For some poor families low wage rates and high tax back rates have created disincentives for employment, while for other parents new welfare policies requiring employment have resulted in involuntary employment in the low wage labour market. It can be speculated that low wage work and welfare create different sets of advantages and disadvantages for families and child development.

Very little research has compared the developmental outcomes of children from working poor and welfare dependent families. However research has been done separately on the effects of low wage employment and welfare on child development. The findings of these studies reveal that, for poor single mothers, work in the labour market is

not a solution for increasing family income above the poverty line. Moreover, the effects of low wage work in routine, unsupportive work environments results in increase paternal stress, which has been shown to negatively effect parent/child interactions. These negative parent/child interactions are detrimental to the healthy development of poor children, and can result in emotional and behavioral problems.

It is also important to note that preference for working outside of the home is an important factor influencing maternal well-being. Women who prefer to work in the paid labour force are happier and experience less role strain than those women who work, but prefer to stay at home. These finding are important as they highlight the importance of a woman's choice to work or stay home in determining her own well-being and in turn the well-being of her children.

Far less is known about the effects of welfare on children as most of the research in this area has tended to focus on adolescents. Although studies have shown a somewhat increased risk for welfare dependency for sons and daughters who grow up on welfare, the significance of this correlation is rather small. Research in this area has also focused on the effects of welfare on adolescent sexual behavior and pregnancy rates, and found that those adolescent girls who grew up on welfare were at slightly greater risk to be involved in sexual activity and become pregnant that other teens.

Although the research has shown that welfare can have negative outcomes for adolescents, the findings regarding children are less clear. Of the few studies examining this issue, welfare has been found to be both beneficial and detrimental to the development of young children. These mixed results regarding the effects of welfare on children highlight the need for further research on this topic.

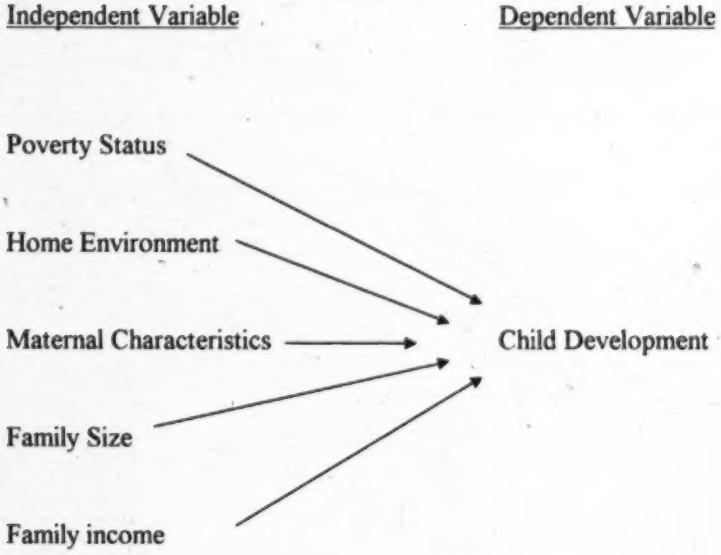
In addition to poverty status, elements of a child's home and family environment also are important predictors of development outcomes. Family size, family type and family income have all been found to impact child development. Moreover, parental characteristics such as the presence of stress and depression and educational level can also have implication for child development.

Finally, poor single mothers who participate in low wage employment have been found to have more education and higher cognitive abilities than poor single mothers collecting welfare. As parental characteristics, including education, have important implication for child development, some of the differences in developmental outcomes of children from working poor and welfare dependent families can be attributed to this factor.

Conceptual Hypothesis

Based on assumptions from Human Ecological Theory and on findings from the previous research, the following hypotheses will be tested in this study:

1. Poverty status is an important predictor of child developmental outcomes.
2. Parental characteristics, home environment, family size and income are additional co-variates effecting child development.



CHAPTER 4

METHODS

Design

A comparative design, utilizing cross sectional data from The National Longitudinal Survey of Children and Youth (Cycle 1) was used to study the relationship between poverty status and child development. Comparison groups comprise children aged four and five belonging to working poor or welfare dependent families. Developmental outcomes of these groups were compared using standardized scores on the PPVT-R. In the following sections of the chapter, the sample and sub sample are described, followed by a description of the instrumentation, data analysis and the limitations of the study.

Sample and Sub-Sample

The National Longitudinal Survey of Children and Youth (NLSCY) is the largest, most comprehensive survey on the health and well being of Canadian children. Cycle 1 of the survey, gathered by Statistics Canada between 1994 and 1995, represents the first release of data from the survey. Subsequent data collection is being done every two years to allow for future longitudinal studies of the sample. The NLSCY consists of 22, 831 randomly sampled children from the 10 Canadian provinces. The sample was constructed to allow for reliable estimates for each of the 10 provinces and for all age groups of children from newborn to 11years old. It should be noted that the sample excludes children living in the North West Territories, the Yukon, or on Indian Reserves. So one group of children who might be living in poverty is excluded from the survey.

This study uses a sub-sample from the data set which includes children living in single mother and two parent families, whose family incomes fall below the Statistics Canada low income cut off line. Children from both single parent and two parent families are included in this study so that comparisons can be made between the two family types. In order to eliminate the complex task of sorting out the effects of poverty status on child development from the effects of schooling, only children between the ages of four and five are chosen for the study. Children are divided into working poor or welfare dependent groups, depending on the major source of family income over the 12 months prior to the survey, as reported by the parent at the time of the survey.

Instrumentation and Procedures

Surveys administered in person by a trained interviewer, utilizing mainly closed ended questions, and standardized tests, were used to gather data from parents and children. The first step in the data collection process was to identify a person most knowledgeable (PMK) about the child to complete the survey. The PMK then completed three questionnaires, the General Questionnaire, which collected socio-economic information on the PMK, the Parental Questionnaire, which collected information on the general health of the PMK, in addition to information on social support, family functioning and the characteristics of the surrounding neighbourhood. Finally the Child Questionnaire was completed by the PMK, which included the topics of health , behavior, education, literacy , parenting, child care and custody history. In households where there were children between the ages of 4 and 5 the Peabody Picture Vocabulary Test - Revised (PPVT-R) was administered by the interviewer. The total interview length was

approximately two hours. For the purposes of this study, data from the general questionnaire, the parenting scale from the children's survey, the depression scale from the parent's survey and the Peabody Picture Vocabulary Test - Revised (PPVT-R) were used.

Measurement of Variables

Dependent Variable

The dependent variable of child development was measured by the standardized score achieved on the Peabody Picture Vocabulary Test - Revised. The PPVT-R is a standardized test which measures the hearing vocabulary of children 3 years or older. A child is asked to look at a series of pictures, and to identify the picture which matches the word which an interviewer reads out. The PPVT-R is considered to be a reliable measure for mental age and IQ (Desai, et al, 1989) and is a common measure for child developmental outcomes used in previous research (Desia, et al. 1989; Parcel and Meneghan, 1994; Vandell and Ramanan, 1992). For the NLSCY, the PPVT-R was used to measure the construct of school readiness for children between the ages of 4 and 5 years. A total raw score was assigned for each child who completed the test, and a standardized score was assigned so that comparisons could be made across age groups. The standard score for the PPVT-R is 100 with a standard deviation of 15. This standardization was done by 2 month age groups. Test scores for children in the sample range from 50 to 159. This means that children who scored 50 on the test were approximately 6 month behind in their verbal development relative to other children their age.

Independent Variables

Poverty Status - The independent variable of poverty status was determined by the main source of family income, wages and salaries from employment or welfare, 12 months prior to the time of the survey, reported by the PMK. A dummy variable was created for the analysis with 1= welfare and 0 = employment.

Home Environment - The quality of the child's home environment was measured by two variables: Parental depression and positive interaction between the parent and the child.

- Parental Depression - This variable was measured by the parent's score on a 12 item scale (Parental Depression Scale, Appendix A) measuring feelings and behaviors associated with depression. The depression scale contains 12 questions with four possible response categories. The total score could range between 0 and 36, with a high score indicating a elevated level of depression. Actual scores on the Depression Scale for the sample range from 0 to 34. The Parental Depression Scale is a shorter version of the depression rating scale (CES-D), comprising 20 questions, developed by L.S. Radloff of the Epidemiology Study Centre of the National Institute of Mental Health in the United States. The Cronhbach's alpha coefficient, calculated to determine the reliability of the 12 item depression scale used in the NLSCY, was 0.82.
- Positive Interaction - This variable was measured by a score on a 5 item scale measuring parent's report of positive interaction with the child (Appendix B). Possible score ranged from 0 to 20; actual scores for the sub-sample used in this study ranged from 3 to 20. Questions from this portion of the survey pertain to the time the parent spends with the child in play activities and

frequency of positive reinforcement given to the child. The positive interaction scale is part of the larger parenting scale which was an adaptation of Strayhorn and Weidman's Parent Practices Scale. The Cronhbach's alpha coefficient for the positive interaction scale used in the NLSCY was 0.727.

Parental Education - This variable was measured by the PMKs response to the question have you ever graduated from high school. In the sub sample used for this study, in the vast majority of cases, 95%, the PMK was the child's biological mother. A dummy variable was created for the analysis with yes = 1 and no = 0.

Family Size - This variable was measured by the total number of children 0 - 17 living in the household including the child. Number of children ranged from 1 to 6 for the sub-sample used in this study.

Family income - This variable was measured by the estimate of the total income, before taxes as a percentage of the low income cut off line. Family income ranged from 16% to 99% of the LIC0 for the sub sample used in this study.

Family Type - This variable was measured by number of parents (including biological and step parents) the child lived with. A dummy variable was created for the analysis with 1= single mothers (no single fathers existed in the sub-sample), and 0 = two parents (includes two biological or one biological parent and one step parent).

Data Analysis

Data analysis involved the use of descriptive statistics and multiple regression analysis. The first step in the data analysis was to weight the data to ensure that the sample was representative of the larger population. Descriptive statistics were then

calculated to compare characteristics of children from the welfare dependent and working poor groups. Mean scores and standard deviations were calculated to compare outcomes on the continuous variables and t-values were calculated to determine if differences between the two groups were statistically significant. Cross-tabulations were used to compare the categorical variables for each group and chi-square statistics were used to determine statistical significance of group differences.

Multiple regression was used to test the hypothesis that poverty status, controlling for the variables, parental education, family type, home environment, family size and income, is a predictor of child developmental outcomes. Prior to the regression analysis collinearity diagnostics were performed. Result of this analysis showed no statistically significant correlation's between the independent variables.

An alpha level of no greater than .05 was used to determine significant difference for the results of t-tests, chi-squares and regression analysis.

Limitations

Results of this study show whether differences do occur in the developmental outcomes of children from working poor and welfare dependent single mother families, but does not attempt to determine a cause and effect relationship between the variables. Any differences found in the developmental outcomes of these two groups will require further research to determine how poverty status effects development.

While results of this study may be generalized to the larger Canadian population of children between the ages of 4 and 5, this should be done with caution. First, the aboriginal population of children is underrepresented in this sample, due to the exclusion

of Indian Reserves, the Yukon and North West Territories from the sample. As a result, some children living in the most highly impoverished conditions may also be underrepresented the sample. In addition, only those children whose parent agreed to disclose information on family income are included in the sample. This may have resulted in some sampling bias, but it is unknown if this bias is correlated to family income level.

CHAPTER 5

RESULTS

In this chapter the sample is described, as are results of tests of hypothesis about the relationship between poverty status, demographic characteristics, home environment and child development.

Description of the Sample

The sample consisted of 655 children between the age of 4 and 5 years living in single mother and two parent families (consisting of 2 biological parents or one biological parent and one step parent) whose family income fell below the LICO. Three hundred-forty-seven (53%) of the children lived in working poor families where the main source of income, 12 months prior to the survey, was wages from employment. Three hundred-eight (47%) of the children lived in welfare dependent families where the main source of income, 12 months prior to the survey, was from social assistance benefits. For the majority of children in the sample, 95%, the relationship of the PMK to the child was the biological mother. Hence, for the vast majority of children, variables measuring parental characteristics pertain to the child's mother.

It should be noted that those children whose PMK did not report family income could not be included in this study. From the total sample of 4 to 5 year old children from the NLSCY, 17.3% did not include income data and were excluded from this sample.

The Relationship between Poverty Status and Child Development

The findings regarding the relationship between poverty status, and children's score on the PPVT-R are presented in Table 1. These findings show that average standard scores on the PPVT-R were significantly higher for children from working poor families than for children in the welfare dependent families. It should be noted that, although this finding is statistically significant, the difference in mean scores between the two scores is within one standard deviation. This means that children who live in welfare dependent families are less then two months behind in their verbal development, than their peers in working poor families.

Table 1

Means (Standard Deviations) and T-values for PPVT-R

	Total	Work	Welfare	T-value
PPVT-R Score	94.10 (16.29)	96.63 (15.65)	91.24 (16.55)	4.49**

**p<.001 (2-tailed)

The demographic characteristics of the sample are presented in Tables 2 and 3.

Table 2

The Relationship between Poverty Status and Categorical Variables

	Total	Work	Welfare	chi-square
Age (years)				
4	51.8% (n=339)	51.9% (n=180)	51.6% (n=159)	
5	48.2% (n=316)	48.1%(n=167)	48.4% (n=149)	.004
Gender of Child				
Female	49.0% (n=321)	49.9% (n=173)	48.1% (n=148)	
Male	51.0% (n=334)	50.1% (n=174)	51.9% (n=160)	.212
Family Type				
2 Parent	52.8% (346)	74.9% (260)	27.9% (86)	
Single Mother	47.2% (309)	25.1% (87)	72.1% (222)	144.674**
Parental Education				
Below High School	43.6% (n=285)	28.0% (n=97)	61.0% (n=188)	
High School Graduation	56.4% (n=369)	72.0% (n=249)	39.0% (n=120)	72.189**
Relation of the PMK to Child				
Biological Mother	94.8% (n=620)	93.4% (n=324)	96.4% (n=296)	
Biological Father	3.8% (n=25)	4.0% (n=14)	3.6% (n=11)	
Step Father	.5% (n=3)	.9% (n=3)	0	
Other Female Relative	.9% (n=6)	1.7% (n=6)	0	a

**p<.001

a. sample too small in 4 cells for reliable results

Children from working poor families and welfare dependent families were similar with respect to age, gender, and the relationship of the PMK to the child, however, statistically significant differences were found with regard to family type and parental education level. A higher proportion of children in working poor families were in two parent families, as compared to children in welfare dependent families. In addition, children in working poor families were more likely than children in welfare dependent families to have a PMK who graduated from high school.

The findings also show statistically significant differences for children from working poor families and welfare dependent families with respect to parental depression levels, family income and family size. The average number of siblings and ratio of family income to the LICO was significantly higher for children from working poor families than for children from welfare dependent families. However, the average parental depression score was significantly higher for children from welfare dependent families than for children from working poor families.

Table 3

Means (Standard Deviations) and T-Values for Continuous Variables

	Total	Work	Welfare	T-value
Depression Score	6.63	5.61	7.75	-4.30**
	(6.39)	(5.90)	(6.72)	
Positive Interaction	14.40	14.24	14.57	-1.41
	(3.04)	(2.88)	(3.20)	
Number of Children	2.35	2.52	2.16	4.58**
	(1.03)	(1.00)	(1.02)	
Ratio of Income to the LICO	.68	.77	.59	13.03**
	(.19)	(.18)	(.16)	

**p<.001 (2-tail)

Characteristics of the Working Poor and Welfare Dependent Groups

The results of descriptive analysis show that children from working poor families demonstrate significantly higher levels of verbal development than children from welfare dependent families. However, the simple effects of poverty status on child development may be attributed, in part, to the different maternal and family characteristics of the two groups. Descriptive statistics also indicate that there are significantly higher levels of maternal education and income among the working poor families and lower levels of maternal depression. These factors have been found, in the previous research, to be positively correlated with child developmental outcomes (Desai et al., 1989, Parcel & Menaghan, 1990; 1994; Vandel & Ramanan, 1992). For this reason, it was necessary to conduct multiple regression analysis so as to determine whether poverty status per se is related to child developmental outcomes, even after controlling for the effects of family type, family size, income, maternal education and home environment.

It should also be noted that, while those children from welfare dependant families had significantly lower mean incomes than those children from working poor families, the mean income for the entire sample is well below the poverty line, at a ratio of 68% of the LICO. This indicates that while the LICO was used to measure poverty in this study, the majority of children in the sample were from families with incomes well below the poverty line.

Regression Analysis

Regression results support the hypothesis that poverty status is a predictor of child development outcomes. Higher levels of verbal developmental outcomes are associated

with children from working poor families as compared to those children from welfare dependent families, even after controlling for the effects of family type, family size, income, maternal education, and home environment. Children in welfare dependent families scored 5.49 lower on the PPVT-R than children from working poor families. In addition, the results indicate that relative to the other variables measured in this study, poverty status has the greatest effect on PPVT-R test scores. The results of the regression analysis are presented in Table 4.

Table 4

Multiple Regression on Child Developmental Outcomes (PPVT-R Score)

Independent Variables	b	t	Beta
Family Type [a]	4.32	2.97*	.13
Number of Children	-1.72	-2.73*	-.11
Ratio of Income to the LICO	.01	1.86	.08
Parental Education [b]	3.42	2.49*	.11
Positive Interaction	-.18	.403	-.03
Depression Score	-.33	-3.26**	-.13
Poverty Status [c]	-5.49	-3.45**	-.17

R^2: .10 F: 10.38**

a Coded as 1 = Single Parent Family and 0= Two Parent Family
b Coded as 1 = high school graduate and 0 = less than high school
c Coded as 1 = welfare dependent and 0 = working poor
*$p \leq .05$
**$p \leq .001$

Results of the regression analysis also show that higher levels of parental depression and a greater number of siblings were associated with lower scores on the PPVT-R. However, being in a single mother family and having a parent who completed high school were associated with significantly higher PPVT-R scores. The findings show that children from single mother families scored on average 4.32 higher on the PPVT-R, than those children living in two parent families. Those children with a parent who had completed high school scored 3.42 higher on the PPVT-R, than those children who had a parent who did not complete high school.

Although positive parent child interaction has been found in previous research to effect child development (Hamish et al. 1995; McLoyd & Wilson, 1991), no relationship was found in this study. This may have resulted from skewed distribution of observations on this variable. The vast majority of sample, over 90%, scored over 10 points on the 20 item scale, indicating a relatively high level of positive parent child interaction among the sample.

Previous research has found a negative relationship between low income and child development. (Canadian Council on Social Development, 1996; Ontario Ministry of Health, 1992; Ross et al. 1996). However, no relationship was found between family income and PPVT-R scores in this study. The conflicting findings may result from sample differences. This study included children whose family income fell below the LICO, while previous studies included children of all income levels. It can be speculated that while low income negatively effects child development, variation in income levels for poor children has no significant effect.

Lastly, the finding from the regression analysis show that while poverty status, family type, family size, parental education and parental depression are significant predicators of child verbal development, these variables are only a portion of the factors affecting child development. The low R^2 of .10 indicates that the model explains approximately 10% of the variation is PPVT-R scores. It can be speculated that child verbal development is effected by numerous factors, many of which are not accounted for in this study.

In summary, while descriptive statistics show that children from working poor families demonstrate higher levels of verbal development than children from welfare dependent families, these findings can only be partially attributed the different demographic characteristics of the two groups. Results from the regression analysis show that poverty status is a significant predictor of child development, even after controlling for the effects of family and parental characteristics. In the following chapter the implications of these finding will be discussed.

CHAPTER 6

DISCUSSION

In this chapter the major findings regarding the relationship between poverty status and child development will be discussed, along with the implication of these findings for policy and future research.

The Relationship between Poverty Status and Child Development

Regression results support the hypothesis that poverty status is a significant predictor of developmental outcomes in children from poor families. Results show that slightly higher levels of verbal development are displayed by children from working poor families as compared to children from welfare dependent families. These findings suggest that parental employment may have some benefits for the developmental outcomes of children from low income families.

The findings of this research support assumptions from human ecological theory which suggest that environmental factors, including poverty status, effect child development. It appears that family welfare dependence may have negative impacts on child development. Both those factors that are directly associated with welfare dependence and those factors indirectly correlated with welfare dependence, but not controlled for in this study, may have contributed to the findings. For example, factors directly linked to welfare receipt, such as the stigma of welfare and the frustration of dealing with the welfare system, may partially explain the negative effects of welfare on families and children.

In addition, variables not controlled for in this study, such as parental health and mental health, may also contribute to the findings. It can be speculated that poor parental health and mental health may have led to welfare dependence for some families included in this study. While parental depression was the only measure of parental health included in this study, additional parental health indicators may have also effected child development. Future research measuring the impact of a variety of parental health indicators, and factors directly associated with welfare receipt, such as stigmatization and frustration, may lead to a greater understanding of the negative relationship between family welfare receipt and child development.

While the findings of this research may appear to support welfare reform strategies, which include mandatory employment policies for parents of young children, important caveats must be considered. The data used for this study were gathered between 1994 and 1995. It can be speculated that the majority of families surveyed were not yet effected by welfare reforms and mandatory employment policies. Although some provinces, such as Alberta, began to reform their welfare systems as early as 1993, mandatory employment policies directed at parents of young children were not implemented until 1996. Moreover, mandatory employment policies for parents of young children vary among provinces. While only parents with children 6 months of age and younger are exempt for seeking employment in Alberta, parents in British Columbia may remain at home to care for their children until they reach the age 6 (Canada Council on Social Development, 1998).

It can be speculated that prior to implementation of mandatory employment policies for parents of young children, many of the of the low income parents surveyed

may have chosen to participate in work or welfare. Choice to participate in paid employment is an important factor which contributes to the well being of employed poor mothers (Jackson, 1992; Parker, 1994). Employment is associated with the greatest distress for mothers and children when mothers are employed, but preferred not to be (Menaghan & Parcel, 1990). Elimination of the choice to participate in work outside of the home through policy and programs will likely add to the stress and role strain for some poor mothers which, in turn, may have negative impacts on the well being of their children.

Moreover, enforcing mandatory employment requirements for parents with low educational levels and high levels of depression may also have negative consequences for children. For highly barriered mothers, employment may be limited to jobs without supports such as benefits, flexible work hours and paid sick leave. These factors may further erode maternal well-being, increasing depression levels and in turn, negatively impact child development. Further research will be needed in order to monitor the effects of welfare reform and mandatory employment on children.

Finally, it is important to note that, although children in welfare dependent families had verbal test score which were significantly lower in a statistical sense than their peers in working poor families, scores for children in the two groups were within one standard deviation of each other. This finding indicates that children from welfare dependent families are less than 2 months behind in their verbal development than children from working poor families. In order to assess the full impact of poverty status on child development, future research will be need to include additional variables measuring child developmental outcomes.

The Relationship between Parental Education and Child Development

In addition to poverty status, parental education is a significant factor predicting child development. Children whose parents have completed high school demonstrate higher levels of verbal development than children whose parents have not completed high school. The correlation between parental education and child development also has important implication for welfare reform policies. Some provinces, such as the Ontario Works program, have adopted a Work-First approach to welfare reform (Canada Council on Social Development, 1998). In a work-first model, welfare recipients are required to participate in employment, even at very low wages, to gain experience and eventually work their way up into higher paying jobs. Provision of training, including upgrading, is secondary in the work-first approach, and is only provided to those individuals who fail repeatedly in the labour market.

Findings from this study suggest that education plays an important role for poor families, beyond its relationship to employment. Welfare reform policies which adopt a human capital development (training first) approach, are more likely to have positive implications for child developmental outcomes. By investing in education for parents on welfare, policy makers are indirectly investing in children. A human capital development approach to welfare reform can have positive implications for young children at risk for poor developmental outcomes, perhaps reducing the need for remedial interventions later in life and leading to greater likelihood of labour market success.

The Relationship between Family Type and Child Development

Unexpectedly, children from single mother families were found to have higher levels of verbal development than their peers from two parent families. These findings are inconsistent with the results of previous studies which reported that family structure had no effect on child development (Ross & Roberts, 1998; Desai et al 1989), and are in conflict with the results of research reporting that living in a single mother family negatively impacts child development (Duncan et al. 1994). The findings pertaining to single mother families are of particular interest as they dispute the notion that variations from the traditional nuclear family have devastating implications for child development. It is more likely that negative correlations between child development and single parent status result from the increased risk of living in poverty faced by children in single parent families, rather than from family type.

Further research will be needed to determine why children from single parent families scored higher on tests of verbal development than their peers from two parent families. It can be speculated that characteristics of the sample may have contributed to these results. First, this study included a sample of children from poor families. Stress resulting from insufficient financial resources may have contributed to marital conflict among the two parent families in the sample. In turn, this conflict between parents may have had negative effects on child development. Future research measuring the effects of family functioning will be needed to determine if marital conflict around financial issues contributed to lower levels of child verbal development.

The inclusion of step families in the group of two parent families may have further confounded the results. Children in step families may experience higher levels of stress

and family disfunction, resulting from divorce and/or remarriage, than their peers living with two biological parents.

Finally, it is important to note that this study did not account for variations in single parent families. Factors such as family history, and custody arrangements may also have impacts for child developmental outcomes. Future research examining these variables may reveal that variations in single parent families also have implications for child development.

The Relationship between Income and Child Development

Unexpectedly, this study found no correlation between family income and child verbal development. These finding are in contrast with the results of numerous studies indicating a negative correlation between low income and child development (Canadian Council on Social Development, 1996; Ontario Ministry of Health, 1992; Ross et al. 1996). Findings from a recent study completed by the Canada Council on Social Development (1999) indicate that the level of income families need to maximize children's chances of optimal development goes well beyond the poverty line. The finding from this research suggest that an appropriate child poverty line would be within the $30,000 to $40,000 range for a family of four.

The contrary findings from this study may result largely from sample differences. This study included children whose family income fell below the LICO, while previous studies included children of all income levels. Moreover, while the LICO was the measure of poverty used for this study, most of the sample had incomes which were less than .75 of the LICO. This indicates that the sample was very low income, by any measure of

poverty. It can be speculated that, while low income negatively effects child development, variation in income levels for children with very low family incomes has no significant effect on verbal development. It should also be noted that, while variations in income levels had no significant effect on verbal development, results may differ for additional measures of child development.

Summary and Conclusions

This study explored the relationship between poverty status and child developmental outcomes. The results of the regression analysis supported the hypothesis that poverty status is an important predictor of child verbal development. These findings have important implications for policy and future research.

The relationship between family poverty status and child developmental outcomes highlights the need to consider entire families, not just parents, when implementing welfare reform policies. As suggested by human ecology theory, the socio-cultural environment, including government policies, has implicit impacts on families and children. Mandatory employment requirements directed at parents on welfare not only have implications for parents, they also have important implications for children. Loosing sight of this relationship could lead to devastating outcomes for families and children.

Finally, the results of this study have important implications for future research. Findings from this study indicate that parental employment may have benefits for the developmental outcomes of low income children, independent of the effect of income and family environment. However, questions remain as to why children from working poor families have more positive outcomes than their peers in welfare dependent families. In

addition, a need exists for more qualitative work in this area to explore the experience of low wage work and welfare for mothers and children in both groups.

Questions also remain regarding the participation of working poor mothers in support programs that can benefit themselves and their children. Previous research indicates that early childhood programs, such as Head Start, can produce long term benefits in children's cognitive development, socialization and school success (Barnett, 1995). A key component to many early childhood programs is parental participation in activities to improve parenting skills and home learning environments. As welfare reforms force an increasing number of poor mothers into the labour market, will these mothers have the time to participate in early childhood education programs which can significantly benefit child development?

Last, studies are needed to examine the differences between the developmental outcomes for children with working poor mothers and mothers participating in job training and education programs, to explore which of these options is the best for poor mothers and their children. Only through such research can sound policy decisions be made to truly assist single mothers in gaining independence for themselves and their children.

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APPENDIX A

ADULT HEALTH - DEPRESSION SCALE

1. HOW OFTEN YOU HAVE FELT OR BEHAVED THIS WAY DURING THE PAST WEEK: I did not feel like eating; my appetite was poor.

    1. RARELY OR NONE OF THE TIME (LESS THAN 1 DAY)
    2. SOME OR A LITTLE OF THE TIME (1-2 DAYS)
    3. OCCASIONALLY OR A MODERATE AMOUNTOF TIME (3-4 DAYS)
    4. MOST OR ALL OF THE TIME (5-7 DAYS)

2. HOW OFTEN YOU HAVE FELT OR BEHAVED THIS WAY DURING THE PAST WEEK: I felt that I could not shake off the blues even with help from my family or friends.

    1. RARELY OR NONE OF THE TIME (LESS THAN 1 DAY)
    2. SOME OR A LITTLE OF THE TIME (1-2 DAYS)
    3. OCCASIONALLY OR A MODERATE AMOUNTOF TIME (3-4 DAYS)
    4. MOST OR ALL OF THE TIME (5-7 DAYS)

3. HOW OFTEN YOU HAVE FELT OR BEHAVED THIS WAY DURING THE PAST WEEK: I had trouble keeping my mind on what I was doing.

    1. RARELY OR NONE OF THE TIME (LESS THAN 1 DAY)
    2. SOME OR A LITTLE OF THE TIME (1-2 DAYS)
    3. OCCASIONALLY OR A MODERATE AMOUNTOF TIME (3-4 DAYS)
    4. MOST OR ALL OF THE TIME (5-7 DAYS)

4. HOW OFTEN YOU HAVE FELT OR BEHAVED THIS WAY DURING THE PAST WEEK: I felt depressed.

    1. RARELY OR NONE OF THE TIME (LESS THAN 1 DAY)
    2. SOME OR A LITTLE OF THE TIME (1-2 DAYS)
    3. OCCASIONALLY OR A MODERATE AMOUNTOF TIME (3-4 DAYS)
    4. MOST OR ALL OF THE TIME (5-7 DAYS)

5. HOW OFTEN YOU HAVE FELT OR BEHAVED THIS WAY DURING THE PAST WEEK: I felt that everything I did was an effort.

    1. RARELY OR NONE OF THE TIME (LESS THAN 1 DAY)
    2. SOME OR A LITTLE OF THE TIME (1-2 DAYS)
    3. OCCASIONALLY OR A MODERATE AMOUNTOF TIME (3-4 DAYS)
    4. MOST OR ALL OF THE TIME (5-7 DAYS)

6. HOW OFTEN YOU HAVE FELT OR BEHAVED THIS WAY DURING THE PAST WEEK: I felt hopeful about the future.

    1. RARELY OR NONE OF THE TIME (LESS THAN 1 DAY)
    2. SOME OR A LITTLE OF THE TIME (1-2 DAYS)
    3. OCCASIONALLY OR A MODERATE AMOUNTOF TIME (3-4 DAYS)
    4. MOST OR ALL OF THE TIME (5-7 DAYS)

7. HOW OFTEN YOU HAVE FELT OR BEHAVED THIS WAY DURING THE PAST WEEK: My sleep was restless.

    1. RARELY OR NONE OF THE TIME (LESS THAN 1 DAY)
    2. SOME OR A LITTLE OF THE TIME (1-2 DAYS)
    3. OCCASIONALLY OR A MODERATE AMOUNTOF TIME (3-4 DAYS)
    4. MOST OR ALL OF THE TIME (5-7 DAYS)

8. HOW OFTEN YOU HAVE FELT OR BEHAVED THIS WAY DURING THE PAST WEEK: I was happy.

    1. RARELY OR NONE OF THE TIME (LESS THAN 1 DAY)
    2. SOME OR A LITTLE OF THE TIME (1-2 DAYS)
    3. OCCASIONALLY OR A MODERATE AMOUNTOF TIME (3-4 DAYS)
    4. MOST OR ALL OF THE TIME (5-7 DAYS)

9. HOW OFTEN YOU HAVE FELT OR BEHAVED THIS WAY DURING THE PAST WEEK: I felt lonely.

    1. RARELY OR NONE OF THE TIME (LESS THAN 1 DAY)
    2. SOME OR A LITTLE OF THE TIME (1-2 DAYS)
    3. OCCASIONALLY OR A MODERATE AMOUNTOF TIME (3-4 DAYS)
    4. MOST OR ALL OF THE TIME (5-7 DAYS)

10. HOW OFTEN YOU HAVE FELT OR BEHAVED THIS WAY DURING THE PAST WEEK: I enjoyed life.

    1. RARELY OR NONE OF THE TIME (LESS THAN 1 DAY)
    2. SOME OR A LITTLE OF THE TIME (1-2 DAYS)
    3. OCCASIONALLY OR A MODERATE AMOUNTOF TIME (3-4 DAYS)
    4. MOST OR ALL OF THE TIME (5-7 DAYS)

11. HOW OFTEN YOU HAVE FELT OR BEHAVED THIS WAY DURING THE PAST WEEK: I had crying spells.

    1. RARELY OR NONE OF THE TIME (LESS THAN 1 DAY)
    2. SOME OR A LITTLE OF THE TIME (1-2 DAYS)
    3. OCCASIONALLY OR A MODERATE AMOUNTOF TIME (3-4 DAYS)
    4. MOST OR ALL OF THE TIME (5-7 DAYS)

12. HOW OFTEN YOU HAVE FELT OR BEHAVED THIS WAY DURING THE PAST WEEK: I felt that people disliked me.

    1. RARELY OR NONE OF THE TIME (LESS THAN 1 DAY)
    2. SOME OR A LITTLE OF THE TIME (1-2 DAYS)
    3. OCCASIONALLY OR A MODERATE AMOUNTOF TIME (3-4 DAYS)
    4. MOST OR ALL OF THE TIME (5-7 DAYS)

APPENDIX B

POSITIVE PARENTING SCALE

1. How often do you praise %fname%, by saying something like "Good for you!" or "What a nice thing you did!" or "That's good going!"?

01 NEVER
02 ABOUT ONCE A WEEK OR LESS
03 A FEW TIMES A WEEK
04 ONE OR TWO TIMES A DAY
05 MANY TIMES EACH DAY

2. How often do you and %he/she% talk or play with each other, focusing attention on each other for five minutes or more, just for fun?

01 NEVER
02 ABOUT ONCE A WEEK OR LESS
03 A FEW TIMES A WEEK
04 ONE OR TWO TIMES A DAY
05 MANY TIMES EACH DAY

3. How often do you and %he/she% laugh together?

01 NEVER
02 ABOUT ONCE A WEEK OR LESS
03 A FEW TIMES A WEEK
04 ONE OR TWO TIMES A DAY
05 MANY TIMES EACH DAY

4. How often do you do something special with %him/her% that %he/she% enjoys?

01 NEVER
02 ABOUT ONCE A WEEK OR LESS
03 A FEW TIMES A WEEK
04 ONE OR TWO TIMES A DAY
05 MANY TIMES EACH DAY

5. How often do you play sports, hobbies or games with %him/her%?

01 NEVER
02 ABOUT ONCE A WEEK OR LESS
03 A FEW TIMES A WEEK
04 ONE OR TWO TIMES A DAY
05 MANY TIMES EACH DAY